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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/157,655	09/21/1998	BART DIERICKX	IMEC88.00CP1	2723

7590 03/28/2002

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EXAMINER

LUU, THANH X

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 03/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

en

Office Action Summary

Application No.

09/157,655

Applicant(s)

DIERICKX, BART

Examiner

Thanh X Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to amendments and remarks filed January 28, 2002. Claims 13-15 and 17 are currently pending.

Examiner notes that Applicant's clean copy of claim 13, filed January 28, 2002, appears to be missing language claiming a third transistor. Examiner has examined the invention based on the marked-up version of the claims as it appears that the marked-up version is what Applicant intended to claim on the clean copy. However, since the clean copy is the official copy of the claims, appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 13-15 and 17, as understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Buhler et al. (U.S. Patent 5,742,047).

Regarding claim 13, Buhler et al. disclose (see Figure 1) a pixel for imaging applications fabricated in MOS technology, the pixel comprising: a photosensitive element (D1) and a first transistor (M1) having a gate and a first and second electrode and being in series with the photosensitive element, the first transistor and the photosensitive element forming a first connection (at 10); a second transistor (M4) having a gate, the second transistor being coupled to the first connection forming a

second connection (between 10 and 12), the second transistor being part of an amplifying circuit; and a third transistor (M2) having a gate and having two electrodes, the third transistor being connected in the second connection between the first connection and the second transistor; whereby the gate of the first transistor and the gate of the third transistor are coupled together and are both connected to a DC voltage (ϕ_{DR} or V_{T1}). That is, since the first transistor and the third transistor are disposed on a single substrate, the gates of the first and third transistors are coupled together. V_{T1} is (see column 3, lines 10-19) a DC transfer gate voltage. Clock signal ϕ_{DR} produces a DC voltage at the peaks or bottoms of the clock pulse (see Figure 2).

Regarding claim 14, Buhler et al. further disclose (see Figure 1) the gate of the second transistor is connected to the third transistor.

Regarding claim 15, Buhler et al. further disclose (see Figure 1) one of the electrodes of the third transistor is connected to the gate of the second transistor and the other of the electrodes is connected to the first connection.

Regarding claim 17, Buhler et al. disclose the gate of the first transistor is at a first voltage (ϕ_{DR}) and the first electrode of the first transistor is at a second voltage (V_{DR}), the second electrode of the first transistor being connected to the photosensitive element.

Response to Arguments

3. Applicant's arguments with respect to claims 13-15 and 17 have been considered but are not persuasive.

Applicant simply claims the gates being coupled together. As stated above, since the circuit (as a CMOS sensor array) is formed on a single substrate or medium, the gates of the transistors are coupled together. Applicant further claims that the gates are both connected to a DC voltage. The gate of the third transistor is connected to DC voltage V_{T1} . The gate of the first transistor is connected to ϕ_{DR} exhibiting a DC voltage (see Figure 2) at some point in time. Thus, as set forth above, this rejection is proper.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is (703) 305-0539. The examiner can normally be reached on Monday-Friday from 6:30 AM - 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seungsook Ham, can be reached on (703) 308-4090. The fax phone number for the organization where the application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

txl
March 20, 2002


Que T. Le
Primary Examiner